November 28, 2017

#9) $b^2\left(\frac{6b+18}{b^2}+\frac{1}{b}=\frac{3}{b}\right)$ LCD: b^2

$6b+18+b=3b$

$7b+18=3b$

$\frac{4b}{4}=\frac{-18}{4}$

$b=-\frac{18}{4}$

$b=-\frac{9}{2}$

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Check $b=-\frac{9}{2}$

$\frac{6(-\frac{9}{2})+18}{(-\frac{9}{2})^2}+\frac{1\ K}{(-\frac{9}{2})\ F}=\frac{3\ K}{(-\frac{9}{2})\ F}$

$\frac{-27+18}{\frac{81}{4}}+\left[\frac{1}{1}\cdot-\frac{2}{9}\right]=\left[\frac{3}{1}\cdot-\frac{2}{9}\right]$

$\frac{-9}{\frac{81}{4}}+-\frac{2}{9}=-\frac{2}{3}$

$\left[-\frac{9}{1}\cdot\frac{4}{81}\right]-\frac{2}{9}=-\frac{2}{3}$

$-\frac{4}{9}-\frac{2}{9}=-\frac{2}{3}$

$\frac{-4-2}{9}=-\frac{2}{3}$

$-\frac{6}{9}=-\frac{2}{3}$

$-\frac{2}{3}=-\frac{2}{3}$ ✓

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#15)

$\frac{1}{5k^2+2k}-\frac{6}{5k+2}=\frac{6}{5k^2+2k}$

$k(5k+2)$

$\left[\frac{k(5k+2)}{1}\cdot\frac{1}{k(5k+2)}\right]-\left[\frac{k(5k+2)}{1}\cdot\frac{6}{5k+2}\right]=\left[\frac{k(5k+2)}{1}\cdot\frac{6}{k(5k+2)}\right]$

$1-6k=6$

$-1\quad\quad-1$

$\frac{-6k}{-6}=\frac{5}{-6}$

$k=-\frac{5}{6}$

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Check $k=-\frac{5}{6}$

$\frac{1}{5(-\frac{5}{6})^2+2(-\frac{5}{6})}-\frac{6}{5(-\frac{5}{6})+2}=\frac{6}{5(-\frac{5}{6})^2+2(-\frac{5}{6})}$

$\frac{1}{5(\frac{25}{36})-\frac{5}{3}}-\frac{6}{\frac{-25}{6}+\frac{2}{1}}=\frac{6}{5(\frac{25}{36})-\frac{5}{3}}$

$\frac{1}{\frac{125}{36}-\frac{5}{3}}-\frac{6}{\frac{-25+12}{6}}=\frac{6}{\frac{125}{36}-\frac{5}{3}}$

$\frac{1}{\frac{125-60}{36}}-\frac{6\ K}{-\frac{13}{6}\ F}=\frac{6}{\frac{125-60}{36}}$

$\frac{1\ K}{\frac{65}{36}\ F}-\left[\frac{6}{1}\cdot-\frac{6}{13}\right]=\frac{6\ K}{\frac{65}{36}\ F}$

$\left[\frac{1}{1}\cdot\frac{36}{65}\right]+\frac{36}{13}=\left[\frac{6}{1}\cdot\frac{36}{65}\right]$

$\frac{36}{65}+\frac{36}{13}=\frac{216}{65}$

$\frac{36+180}{65}=\frac{216}{65}$

$\frac{216}{65}=\frac{216}{65}$ ✓ ☺

Nov 28-10:22 AM

Complete Solving Rational Equations Handout

* Do some Checks!!

Nov 28-10:35 AM

Chapter 8

8.1 – Introduction to Radical Notation

Index → n, $\sqrt{\ }$ ← Radical Symbol, a^m ← Radicand

$\sqrt[n]{a^m}=a^{\frac{m}{n}}$

Radical Notation = Exponential Notation (base a)

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$7^{\frac{2}{1}} = 7 \cdot 7 = 49$

$(-7)^{\frac{2}{1}} = (-7) \cdot (-7) = 49$

Taking the Square Root of 49

$+ \sqrt[2]{49^1} = 49^{\frac{1}{2}} = 7$

$- \sqrt[2]{49^1} = (-1) \cdot 49^{\frac{1}{2}} = (-1) \cdot 7$

$= -7$

Nov 28-10:42 AM